

ABSTRACT

The object of the present invention is to prevent damage due to thermal stress induced into a substrate holding table in a substrate holding structure for holding a substrate to be processed. In the substrate holding structure having the substrate holding table arranged at the top of a support column, a flanged part is defined by an inner circumferential surface and an outer circumferential surface at a joint between the support column and the substrate holding table. The inner circumferential surface is formed of an inclined surface, which is inclined such that the inner diameter of the flanged part successively increases as approaching the lower surface of the substrate holding table. On the lower surface of the substrate holding table to which the flanged part is joined, a U-shaped groove is formed so as to correspond to the outer circumferential surface of the flanged part.